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On Pisonia obtusata and its allies

N. L. Britton

Pisonia obtusata was described by Jacquin in Hort. Schoenbr. **3**: 36 (1798), and figured at *pl. 314* of that work; a detailed description is given of the plant which came from the island of New Providence, Bahamas, "in insula providentiae." Eight years later, in 1806, Swartz in Fl. Ind. Occ. **3**: 1960, described another *Pisonia obtusata*, which came from the island of Saint Bartholomew, one of the Windward Islands, south of St. Thomas. Grisebach in Fl. Br. W. I., 71, credits the species to Swartz and not to Jacquin, making no mention of the type locality in the Bahamas, and this blunder is continued by Heimerl in Engler's Bot. Jahrb. **21**: 625, in his monograph of West Indian *Nyctaginaceae*, although he cites Jacquin's original description and figure, placing it, however, after his citation of Swartz. This all goes to show that attention to type localities is desirable.

In looking over the collections of Bahamian plants made by Professor Coker, during the exploration conducted by the Geographical Society of Baltimore in the summer of 1903, and those made by me in the summer of 1904, I have had occasion to identify the *Pisonia obtusata* of Jacquin, which is well illustrated by several specimens.

Contingent upon his error in the proper identification of the species, Heimerl has described (*loc. cit.*) the Bahama plant as *Pisonia calophylla*, which thus becomes a synonym of *P. obtusata* Jacq.

A further part of the history of the misidentification of this species is to be found in the reference of the plant of southern Florida to *Pisonia obtusata* Sw., by Chapman, South. Fl. 374; by Sargent, Silva, **6**: 111. *pl. 297*, and by Small, Fl. SE. U. S. 411; this has nothing to do with either the *Pisonia obtusata* of Jacquin or with that of Swartz; Heimerl has included it in his *Pisonia discolor longifolia* (*loc. cit.* 627), making, I believe, a further error in supposing it to be only a form of *P. discolor* Spreng., the type locality of which is Jamaica.

The *Pisonia obtusata* of Swartz has been referred, together with *P. coccinea* Sw., which came from Haiti, to *P. inermis* Jacq., originally from Cartagena on the mainland of South America, but without the present opportunity to examine type-specimens I am unable to verify this reference; Heimerl places *P. coccinea* Sw., in the related genus *Neea*. *Pisonia Pacurero* H.B.K. is referred by Grisebach and by the Index Kewensis to *P. inermis*, and plants from the Windward Islands, Porto Rico and Jamaica, as well as numerous South American specimens, certainly appear to be conspecific with the one figured on *plate 24* of the Botany of the Herald; if Herr Heimerl had stopped to compare the plate of Jacquin illustrating *P. obtusata* with this illustration, I think he could not have failed to have noticed that they represent two entirely different species, although he cites them both under *P. obtusata* Sw.

I have a further criticism to make of current generic references of these trees to the genus *Pisonia* L., the type species of which is *P. aculeata* L., a woody vine with recurved prickles and clavate gland-bearing fruit; the trees under consideration being wholly unarmed and with red drupe-like fruits, the smooth fleshy or juicy exocarp completely enclosing the hard ribbed anthocarp; that they can be congeneric with *P. aculeata* it is quite impossible to believe after seeing them growing in proximity with it in the Bahamian coastal thickets, and from an examination of the literature bearing on *Pisonia* I conclude that the generic name *Torrubia* Vell. Fl. Flum. 139 (1825), is the first one available for them, having as its type *T. opposita* Vell. *loc. cit.*, from maritime woods at Santa Cruz, Brazil. The Floridian and West Indian species known to me are as follows:

1. **Torrubia obtusata** (Jacq.)

Pisonia obtusata Jacq. Hort. Schoenbr. **3**: 36. *pl. 314*. 1825.
Pisonia calophylla Heimerl, Bot. Jahrb. **21**: 625. 1896.

Leaves oval or elliptic, thick, rounded at the apex, 6–9 cm. long, about twice as long as wide, often revolute-margined, the upper ones subcordate, the lower sometimes rounded or a little narrowed at the base; petioles stout, 3–5 mm. long; fruit bright red, shining, juicy, the anthocarp 5–8 mm. long.

Low coppices and scrub lands, mostly near the sea, island of

New Providence, Bahamas, *Cooper 18* and *23; Curtiss 126; Coker 5* and *252; Brace 163, 183* and *189; Britton & Brace 176* and *484.*

2. **Torrubia rufescens** (Griseb.).

Pisonia calophylla rufescens Heimerl, Bot. Jahrb. **21**: 626. 1896.

Pisonia rufescens Griseb.; Heimerl, *loc. cit.*, as synonym.

Leaves thick, flat, obovate, finely and densely tomentulose beneath, rounded or truncate at the apex, cuneately narrowed at the base, the stout petioles 1–1.5 cm. long.

Cuba, *Wright 464.*

3. **Torrubia Cokeri** Britton, sp. nov.

Glabrous, the twigs gray. Leaves firm, obovate, 8 cm. long or less, 3–4 cm. wide, rounded at the apex, narrowed or somewhat cuneate at the base; petioles stout, about 1 cm. long; flowers sessile, the perianth and corymb-branches minutely tomentulose; staminate perianth about 3 mm. long, bluntly 5-toothed, about one-half as long as the stamens.

Tarpum Bay, Eleuthera, Bahamas, *Coker 401* (type); Cuba, *Linden 1988.*

This is included by Heimerl in his *P. calophylla*, in so far as Linden's specimens are concerned, but it is certainly distinct; Wright's Cuban numbers *2041* and *2042*, cited by Heimerl under *P. calophylla*, I have not seen.

4. **Torrubia suborbiculata** (Hemsl.)

Pisonia suborbiculata Hemsl.; Duss, Ann. Inst. Colon. Marseilles, **3**: 62. 1897.

A low glabrous shrub, 2.5 m. high or less, with round or broadly obovate glaucous leaves less than 4 cm. long, their petioles extremely short; fruit pulpy, cylindric, red and glaucous when ripe.

Known only from Martinique; *Duss 1467* and *4391.*

5. **Torrubia discolor** (Spreng.)

Pisonia discolor Spreng. Syst. **2**: 168. 1825.

Leaves oblong-elliptic, thin, 8 cm. long or less, 2–4 cm. wide, obtuse at the apex, narrowed at the base, slender-petioled; anthocarp about 6 mm. long, about one-half as thick as long; fruit oblong, red, the pulp rather thin.

The type is from Jamaica; the species is also known from Haiti (according to Heimerl), and from Cuba, *Wright 2040; Combs 446; Britton & Wilson 72.*

6. **Torrubia longifolia** (Heimerl).

Pisonia discolor longifolia Heimerl., Bot. Jahrb. **21**: 627. 1896.

Pisonia obtusata Chapm. South. Fl. 374. 1860. Not Jacq.

Leaves thin, the blades obovate to spatulate, 5 cm. long or less, or on young shoots longer, 2 to 4 times as long as wide, rounded or often emarginate at the apex, the very slender petioles 8–13 mm. long; fruiting corymbs dense or loose; fruit very juicy, shining, bright red to magenta red, obovoid-cylindric to globose-obovoid, often depressed at the top, the anthocarp 5–6 mm. long.

Type from the Bahamas, where it is very abundant in coastal coppices.

BAHAMAS: New Providence, *Brace 129* and *387*; *Coker 15* and *41*; *Britton & Brace 164*, *166*, *178* and *292*; Andros, *Northrop 517*; St. George's Cay, *Coker 316*; Watling Island, *Coker 472*.

FLORIDA: Key West, *Blodgett*, "large tree flowering in the summer;" same island, *Blodgett*, "shrub 10–15 feet;" Indian River, *Curtiss 2338*; Palm Beach, *Curtiss 5379*; Miami, *Garber*, *Britton 404*; Annette Key, *Simpson 342*, shoots showing the obovate nearly veinless leaves; Bull Key, *Small & Carter 657* and *660*.

CUBA: seashore near Matanzas, *Rugel 411*.

7. **Torrubia Bracei** Britton, sp. nov.

A slender tree, 5 m. high or less, the bark gray. Leaves thin, green on both sides; petioles very slender, 6–8 mm. long; blades narrowly obovate, 5 cm. long or less, rounded at the apex, cuneate-narrowed at the base; fruiting pedicels about 0.5 mm. long; fruit very juicy, oblong-obovoid, twice as long as thick, claret-red, truncate at the top; anthocarp 7–8 mm. long, 2 mm. thick.

Coastal coppice, Ft. Montague, New Providence, Bahamas, *Britton & Brace 168*, August 23, 1904.

This grows in company with the next preceding species and with *P. obtusata*, and is certainly different from either of them.

8. **Torrubia inermis** (Jacq.).

Pisonia inermis Jacq. Select. Am. 275. 1763.

Pisonia obtusata Sw. Fl. Ind. Occ. **3**: 1960. 1806. Not Jacq.

This type is from Cartagena, South America. The species, as I understand it, is widely distributed in northern South America and in the West Indies south of the Bahamas. It is said by Heimerl to grow in Florida, but our collections from that State do not contain it.

9. **Torrubia floridana** (Britton).

Pisonia floridana Britton; Small, Fl. SE. U. S. 411. 1903.

Known only from Rock Key, Florida, and readily distinguished from the other species by its dense pubescence.

Key to the above-mentioned species

Petioles stout.
  Petioles 3–15 mm. long; blades 6–9 cm. long.
    Petioles 3–5 mm. long; leaves subcordate. 1. *T. obtusata.*
    Petioles 1–1.5 cm. long; leaves cuneate or narrowed at the base.
      Leaves densely brown-tomentulose beneath. 2. *T. rufescens.*
      Leaves glabrous on both sides. 3. *T. Cokeri.*
  Petioles only 1 or 2 mm. long; blades 4 cm. long or less. 4. *T. suborbiculata.*
Petioles slender.
  Leaves glabrous.
    Leaves rounded at the apex or emarginate.
      Leaves oval or oblong. 5. *T. discolor.*
      Leaves obovate or oblanceolate.
        Fruit globose-obovoid, little longer than thick; anthocarp 5–6 mm. long. 6. *T. longifolia.*
        Fruit oblong-obovoid, twice as long as thick; anthocarp 7–8 mm. long. 7. *T. Bracei.*
    Leaves pointed, sometimes only bluntly acute. 8. *T. inermis.*
  Leaves densely pubescent, small. 9. *T. floridana.*